

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

David A. WILLIAMS, et al.

Serial No. 09/394,867

Filed: September 13, 1999

METHODS FOR ENHANCED
RETROVIRAL-MEDIATED GENE
TRANSFERVia Hand Delivery
Examiner: Maria Marvich
Group Art Unit 1632

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INFORMATION DISCLOSURE STATEMENT

SUBMITTED TO OFFICE AFTER MAILING OF A FINAL OFFICE ACTION
BEFORE RECEIVING WRITTEN NOTIFICATION OF NEW ISSUES OF
PATENTABILITY RAISED BY OFFICE AFTER RESPONDING TO SAID FINAL
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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Please find enclosed an Information Disclosure Statement filed after receiving a Final Office Action on the merits but before the Applicant had an opportunity to respond to a new set of objections raised after Final.

This Information Disclosure Statement is being submitted after the mailing date of a final Office Action and prior to payment of the issue fee, and thus a fee of \$180.00 is enclosed. Should any additional other fee be required, please charge such fee to Deposit Account No. 23-3030, but not to include any payment of issue fees. This Information Disclosure Statement is not accompanied by a statement under 37 CFR § 1.98(d) 1. Accordingly the Applicants respectfully

Information Disclosure Statement
Serial No. 09/394,867
Group Art Unit 1632
Attorney Docket No. 7037-377
#363736

requests pursuant to the provisions of 37 CFR 1.56, 1.97, and 1.98, consideration of the references listed on the attached PTO/SB/08 forms and/or the additional information identified below.

A legible copy of each foreign patent document and publication listed on the PTO/SB/08 form is enclosed.

For each non-English language reference listed on the attached SB/08 form(s), reference is made to:

Japanese Patent No. 2-97397 correspondence to European Patent Application Publication No. 0 349 342 A2, a copy of which is also enclosed.

Japanese Publication No. 2-311498 corresponding to Kimizuka et al. U.S. Patent No. 5,102,988, and European Patent Application Publication No. 0 399, 806 A2. A copy of the European publication is enclosed.

The filing of this Information Disclosure Statement shall not be construed as an admission that the information cited is, or is considered to be, material to patentability as defined in §1.56(b).

Respectfully Submitted,

By: 

John J. Emanuele, Jr.

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WEIMH/5B/08A (4/05)

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				Application Number	09/394,887
				Filing Date	9/13/1999
				First Named Inventor	WILLIAMS
				Group Art Unit	1632
				Examiner Name	Maria Marylach
Sheet	1	of	9	Attorney Docket Number	7037-377
U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Application of Cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
		Number-Kind Code (if known)			
		4,727,059	02-01-1988	Binder	
		4,839,464	08-01-1989	McCarthy	
		4,980,279	12-01-1990	Peters	
		6,004,681	04-02-1991	Boyse	
		5,019,846	05-28-1991	Furcht	
		5,102,988	04-07-1992	Kimizuka	
		5,116,368	05-26-1992	McCarthy	
		5,124,165	06-23-1992	Reich	
		5,175,096	12-29-1992	Hook	
		5,188,859	02-23-1993	Haberman	
		5,198,423	03-30-1993	Taguchi	
		5,228,172 A1	07-20-1993	Cahalan et al	
		5,299,172	03-29-1994	Badger	
		5,409,825	04-26-1995	Hoffman	

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				Group Art Unit		1632	
				Examiner Name		Maria Marvich	
Sheet	2	of	9	Attorney Docket Number		7037-377	
FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite 1 No.	Foreign Patent Document Country Code ² Number ³ Kind Code ⁵ (if known)		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁶
		EP 0 349 342 A2		01-03-1990	Takara Shuzo Co. Lt		<input type="checkbox"/>
		EP 0 399 806 A1		11-28-1990	Taguchi		<input type="checkbox"/>
		JP 2 311498		12-01-1989	Takara Shuzo Co. Lt		<input type="checkbox"/>
		JP 2 97397		09-04-1990	Takara Shuzo Co. Lt		<input type="checkbox"/>
		WO 90/13641		11-15-1990	Gilboa		<input type="checkbox"/>
		WO 93/18137 A1		09-16-1993	Shih		<input type="checkbox"/>
		WO 94/02610		02-03-1994	Marasco		<input type="checkbox"/>
		WO 95/26200		10-05-1995	Williams		<input type="checkbox"/>

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Sheet	3	of	9		
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
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		"Bubble Boy saved by gene therapy", BBC News, April 3, 2000			
		"Cell-Cell Adhesion and the Extracellular Matrix", Molecular Biology of the Cell, 1983, pp. 673-713, Garland Publishing Co., New York			
		ANDERSON, W. FRENCH, "Prospects for Human Gene Therapy",			
		ANDERSON, W. FRENCH, "Human Gene Therapy - SCIENCE", SCIENCE, May 8, 1992, Vol./Issue No. 256, pp. 808-813			
		APPERLEY, J.F., ET AL., "Retroviral Gene Transfer of Human Adenosine Deaminase in Murine Hematopoietic Cells: Effect of Selectable Marker Sequences on Long-Term Expression", Amer. Soc. Hematology 1991 pp. 310-317			
		ASHWELL, G. ET AL., "Carbohydrate-Specific Receptors of the Liver", Ann. Rev. Biochem, 1982, Vol./Issue No. 51, pp. 531-554			
		BERNARDI ET AL., "Lymphoid Precursor Cells Adhere to Two Different Sites on Fibronectin", J. Cell Biol., 1987, Vol./Issue No. 105, pp. 489-498			
		BIENZLE, DOROTHEE ET AL., "Gene transfer into hematopoietic stem cells: Long-term maintenance of in vitro activated progenitors without marrow ablation", Proc. Natl. Acad. Sci. USA, 1994, Vol./Issue No. 91, pp. 350-354			
		BODINE, D.M. ET AL., "Long-term in vivo expression of a Murine Adenosine Deaminase Gene in Rhesus Monkey Hematopoietic Cells of Multiple Lineages After Retroviral-mediated Gene Transfer into CD34+ Bone Marrow Cells" Blood 1993 Vol./Issue No. 82:7 pp. 1975-1980			
		BODINE, DAVID M., ET AL., "Development of a High-Titer Retrovirus Producer Cell Line Capable of Gene Transfer into Rhesus Monkey Hematopoietic Stem Cells", Proc. Natl. Acad. Sci. USA, 1990, Vol./Issue No. 87 pp. 3738-3742			
		BRADLEY, T.R. ET AL., "The Growth of Mouse Bone Marrow Cells in Vitro", Aust. J. Exp. Biol. Med. Sci., 1966, Vol./Issue No. 44, pp. 287-300			
		BROXMEYER, H.E. ET AL., "Umbilical Cord Blood Hematopoietic Stem and Repopulating Cells in Human Clinical Transplantation", Blood Cells, 1991, Vol./Issue No. 17, pp. 313-329			
		BROXMEYER, H.E. ET AL., "The future of Umbilical Cord Transportation", Umbilical Cord Blood Transportation, , pp. 321-329			
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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	09/394,867
				Filing Date	9/13/1999
				First Named Inventor	WILLIAMS
				Group Art Unit	1632
				Examiner Name	Maria Marvich
Sheet	4	of	9	Attorney Docket Number	7037-377
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. 1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s) publisher city and/or country where published			T ²
		CARTER, ET AL., "Autologous Transplantation of Canine Long-Term Marrow Culture Cells Genetically Marked by Retroviral Vectors", Blood, 1982, Vol./Issue No. 79:2, pp. 356-364			<input type="checkbox"/>
		CORNETTA, ET AL., "Protamine sulfate as an effective alternative to polybrene in retroviral-mediated gene-transfer: implications for human gene therapy", Journal of Virological Methods, 1989, Vol./Issue No. 23 pp. 187-194			<input type="checkbox"/>
		CRISTIANO, R.J., ET AL., "Hepatic Gene Therapy: Adenovirus Enhancement of Receptor-Mediated Gene Delivery and Expression in Primary Hepatocytes", Proc. Natl. Acad. Sci. USA, 1993, Vol./Issue No. 90 pp. 2122-2126			<input type="checkbox"/>
		DILBER, MS. ET AL., "Basic fibroblast growth factor increases retroviral-mediated gene transfer into human hematopoietic peripheral blood progenitor cells", Exp. Hematol, 1994, Vol./Issue No. 22:12, pp. 1129-1133			<input type="checkbox"/>
		EMONS, G. ET AL., "The Use of Luteinizing Hormone Releasing Hormone Agonists and Antagonists in Gynecological Cancers", Hum. Reprod., 1994, Vol./Issue No. 9:7, pp. 1364-1379			<input type="checkbox"/>
		FICHARD ET AL., "Another Look at Collagen V and XI Molecules", Matrix Biology, 1994, Vol./Issue No. 14, pp. 515-531			<input type="checkbox"/>
		FLASSHOVE, M. ET AL., "Increased resistance to taxol for peripheral blood progenitor cells following transduction with an MDR1-encoding retroviral vector", Exp. Hematol., 1995, Vol./Issue No. Abstract 23/8 pp. 934			<input type="checkbox"/>
		FLASSHOVE, MICHAEL, ET AL., "Ex Vivo Expansion and Selection of Human CD34+ Peripheral Blood Progenitor Cells After Introduction of a Mutated Dihydrofolate Reductase cDNA via Retroviral Gene Transfer", Blood, January 2, 1995, Vol./Issue No. 85:2 pp. 566-574			<input type="checkbox"/>
		FRIEDMANN, THEODORE, "Progress Toward Human Gene Therapy", SCIENCE, June 1989, pp. 1278-1281			<input type="checkbox"/>
		GARDNER, ELTON JOHN ET AL., "Somatic-Cell Gene Therapy Treatment of Human Diseases", Principles of Genetics, Vol./Issue No. Chapter 24 Genetic Engineering and the Future, pp. 645-648, John Wiley & Sons, New York			<input type="checkbox"/>
		GLUCKMAN, E. ET AL., "Bone Marrow Transplantation in Fanconi Anaemia", British J. of Haem., 1980, Vol./Issue No. 45, pp. 557-564			<input type="checkbox"/>
		HANENBERG, A. ET AL., "Rapid and efficient transduction of primitive hematopoietic cells; role of retrovirus adhesion in fibronectin assisted gene transfer", Blood, 1995, Vol./Issue No. 86:10, pp. 465a			<input type="checkbox"/>
		HARAGUCHI ET AL., "Effects of Polycations on Infection with Human Retroviruses", Int. Conf. AIDS, 1994, Vol./Issue No. 10:2, pp. 114			<input type="checkbox"/>
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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. 1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s) publisher city and/or country where published			T ²
		HODGSON, CLAGUE P. ET AL., "Virosomes: Cationic Liposomes Enhance Retroviral Transduction", Nature Biotechnology, 1996, Vol./Issue No. 14, pp. 339-342			<input type="checkbox"/>
		HOGGE, DONNA E. ET AL., "The Elusive Peripheral Blood Hematopoietic Stem Cell", Seminars in Hematology, 1993, Vol./Issue No. 30:4 Supp. 4, pp. 82-89			<input type="checkbox"/>
		HOSHINO, K., "Effects of polycations on infection of human retroviruses", Working Group on Structure and function of HIV, "Working Report of 1993", 1994, Vol./Issue No. Partial Translation, pp. 24-27			<input type="checkbox"/>
		HOWELL, A. ET AL., "Response to a Specific Antioestrogen (ICI 162780) in Tamoxifen--Resistant Breast Cancer", The Lancet, 1995, Vol./Issue No. 345, pp. 29-30			<input type="checkbox"/>
		HOWS, J.M. ET AL., "Growth of human umbilical cord blood in longterm haemopoietic cultures", Lancet, July 11, 1992, Vol./Issue No. 340, pp. 73-76			<input type="checkbox"/>
		KARLSSON, STEFAN, "Treatment of Genetic Defects in Hematopoietic Cell Function by Gene Transfer", Blood, 1991, Vol./Issue No. 78:10, pp. 2481-2492			<input type="checkbox"/>
		KASAHARA, N. ET AL., "Tissue-Specific Targeting of Retroviral Vectors Through Ligand-Receptor Interactions", Science, 1994, Vol./Issue No. 266, pp. 1973-1976			<input type="checkbox"/>
		KIMIZUKA ET AL., "Production and Characterization of Functional Domains of Human Fibronectin Expressed in Escherichia coli", J. Biochem., 1991, Vol./Issue No. 110:2, pp. 284-291			<input type="checkbox"/>
		KLIJN, J.G.M. ET AL., "Pre-Clinical and Clinical Treatment of Breast Cancer With Antiprogesterins", Hum. Reprod., 1994, Vol./Issue No. 9 Supp. 1, pp. 181-189			<input type="checkbox"/>
		KOHLI-KUMAR, M. ET AL., "Haematopoietic Stem/Progenitor Cell Transplant in Fanconi Anaemia Using HLA-Matched Sibling Umbilical Cord Blood Cells", British J. Haem., 1993, Vol./Issue No. 85, pp. 419-422			<input type="checkbox"/>
		KORNBLIHTT, A.R., ET AL., "Isolation and characterization of cDNA clones for humans and bovine fibronectin", Proc. Natl. Acad. Sci. USA, 1983, Vol./Issue No. 80:11, pp. 3218-3222			<input type="checkbox"/>
		KORNBLIHTT, A.R., ET AL., "Human fibronectin: cell specific alternative mRNA splicing generates polypeptide chains differing in the number of internal repeats", Nucleic Acids Res., 1984, Vol./Issue No. Abstract 12/14 pp. 5853-5868			<input type="checkbox"/>
		KORNBLIHTT, A.R., ET AL., "Human fibronectin: molecular cloning evidence for two mRNA species differing by an internal segment coding for a structural domain", EMBO J., 1984, Vol./Issue No. Abstract 3/1 pp. 221-226			<input type="checkbox"/>
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		KORNBLIHTT, A.R., ET AL., "Primary structure of human fibronectin: differential splicing may generate at least 10 polypeptides from a single gene", EMBO J., 1985, Vol./Issue No. 4:7, pp. 1755-1759			<input type="checkbox"/>
		LIM, B., ET AL., "Retrovirus-Mediated Gene Transfer of Human Adenosine Deaminase: Expression of Functional Enzyme in Murine Hematopoietic Stem Cells In Vivo", Mol. Cell. Biol., 1987, Vol./Issue No. 7:10, pp. 3459-3465			<input type="checkbox"/>
		LIM, ET AL., "Long-Term Expression Of Human Adenosine Deaminase In Mice Transplanted With Retrovirus-Infected Hematopoietic Stem Cells", Proc. Natl. Acad. Sci. U.S.A., 1989, Vol./Issue No. 86, pp. 8892-8896			<input type="checkbox"/>
		LONG, MICHAEL W., "Blood Cell Cytoadhesion Molecules", Exp. Hematol, 1992, Vol./Issue No. 20, pp. 288-301			<input type="checkbox"/>
		LU, L. ET AL., "CD34 stem/progenitor cells purified from cryopreserved cord blood can be transduced with high efficiency by a retroviral vector and expanded ex vivo with stable integration and expression of fanconi anemia complement c gene" Blood, 1994, Vol./Issue No. Abstract 84/10 Supp. 1, pp. 355a			<input type="checkbox"/>
		LUSKEY, B.D., ET AL., "Stem Cell Factor, Interleukin-3, and Interleukin-6 Promote Retroviral-Mediated Gene Transfer Into Murine Hematopoietic Stem Cells", Blood, 1992, Vol./Issue No. 80:2, pp. 396-402			<input type="checkbox"/>
		MARKOWITZ, D. ET AL., "A Safe Packaging Line for Gene Transfer: Separating Viral Genes on Two Different Plasmids", J. Virol., 1988, Vol./Issue No. 62:4, pp. 1120-1124			<input type="checkbox"/>
		MARKOWITZ, D. ET AL., "Construction and Use of a Safe and Efficient Amphotropic Packaging Cell Line", Virology, 1988, Vol./Issue No. 167, pp. 400-408			<input type="checkbox"/>
		MCGLAVE P. ET AL., "Interaction of primitive human myeloid and lymphoid progenitors with the marrow microenvironment", Blood Cells, 1994, Vol./Issue No. 20:1, pp. 121-128			<input type="checkbox"/>
		MERWIN, JUNE R. ET AL., "Targeted Delivery of DNA Using YEE(GalNAcAH) ₃ , a Synthetic Glycopeptide Ligand for the Asialoglycoprotein Receptor", Bioconjugate Chem., 1994, Vol./Issue No. 5:6, pp. 612-620			<input type="checkbox"/>
		MILLER, A. DUSTY, "Human Gene Therapy Comes of Age", Nature, June 11, 1992, Vol./Issue No. 357, pp. 455-460			<input type="checkbox"/>
		MOORE, KATERI A. ET AL., "Stromal Support Enhances Cell-Free Retroviral Vector Transduction of Human Bone Marrow Long-Term Culture-Initiating Cells", Blood, 1992, Vol./Issue No. 79:6, pp. 1393-1399			<input type="checkbox"/>
		MOORE, M.A., ET AL., "Gene Therapy: New Frontiers, an International Symposium", Meeting Abstract Dublin, Ireland, Sept. 18-21, 1994, pp. 1-2			<input type="checkbox"/>
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				Application Number	09/394,867
				Filing Date	9/13/1999
				First Named Inventor	WILLIAMS
				Group Art Unit	1632
				Examiner Name	Maria Marvich
				Attorney Docket Number	7037-377
Sheet	7	of	9		
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. 1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s) publisher city and/or country where published			
		MOORE, MALCOLM A.S., "Ex vivo expansion of cord blood-derived stem cells and progenitors", Blood Cells, 1994, Vol./Issue No. 20, pp. 468-481			
		NGO, ET AL., "The Protein Folding Problem and Tertiary Structure Prediction", 1994, pp. 492-498, Birkhäuser, Boston, US			
		NOJIMA, YOSHIHISA ET AL., "Ligation of VLA-4 on T Cells Stimulates Tyrosine Phosphorylation of a 105-kD Protein", J. Exp. Med., 1992, Vol./Issue No. 175, pp. 1045-1053			
		OHASHI, T., ET AL., "Efficient Transfer and Sustained High Expression of the Human Glucocerebrosidase Gene in Mice and Their Functional Macrophages Following Transplantation of Bone Marrow Transduced by a Retroviral Vector", Proc. Natl. Acad. Sci. USA 1992 Vol./Issue No. 89			
		PATEL ET AL., "Generation of Interleukin-2 Secreting melanoma Cell Populations from Resected Metastatic Tumor", Human Gene Therapy, 1994, Vol./Issue No. 5, pp. 577-584			
		PATEL, ET AL., "Loss of Adhesion of Murine Erythroleukemia Cells to Fibronectin During Erythroid Differentiation", Science, 1984, Vol./Issue No. 224, pp. 996-998...			
		REISBACH, G. ET AL., "Characterization of hemopoietic cell populations from human cord blood expressing c-kit", Exp. Hematol., 1993, Vol./Issue No. 21, pp. 74-79			
		RUOSLAHTI, E., "Fibro-nectin: Purification, Immunochemical Properties, and Biological Activities", Methods in Enzymology, 1982, Vol./Issue No. 82, pp. 803-831			
		RUOSLAHTI, E., "Fibronectin and Its Receptors", Ann. Rev. Biochem., 1988, Vol./Issue No. 57, pp. 375-413			
		RUOSLAHTI, E. ET AL., "Alignment Of Biologically Active Domains In The Fibronectin Molecule", J. Bio. Chem., 1981, Vol./Issue No. 256, pp. 7277-7281			
		SAIKI, IKUO ET AL., "Inhibitory effect of fibronectin and its recombinant polypeptides on the adhesion of metastatic melanoma cells to Laminin", Jpn. J. Cancer Res., 1991, Vol./Issue No. 82, pp. 1112-1119			
		SEKIGUCHI, K. ET AL., "Human Liver Fibronectin Complementary DNAs: Identification of Two Different Messenger RNAs Possibly Encoding the α and β Subunits of Plasma Fibronectin", Biochemistry 1986 Vol./Issue No. 25 pp. 4936-4941			
		SHIH, C-C., ET AL., "Highly Preferred Targets for Retrovirus Integration", Cell, 1988, Vol./Issue No. 53, pp. 531-537			
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/394,867
		Filing Date	9/13/1999
		First Named Inventor	WILLIAMS
		Group Art Unit	1632
		Examiner Name	Maria Marvich
Sheet	8	of	9
		Attorney Docket Number	7037-377
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. 1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s) publisher city and/or country where published	T ²
		SINGH, VINOD ET AL., "Homonotoxins: Preparation and Characterization of Ovine Luteinizing Hormone-Gelatin Conjugate", Journal of Biological Chemistry, 1989, Vol./Issue No. 264:6, pp. 3089-3095	<input type="checkbox"/>
		SORRENTINO, BRIAN P. ET AL., "Selection of Drug Resistant Bone Marrow Cells in Vivo After Retroviral Transfer of Human MDR1", SCIENCE, July 3, 1992, Vol./Issue No. 257, pp. 99-100	<input type="checkbox"/>
		SUTHERLAND ET AL., "Characterization and Partial Purification of Human Marrow Cells Capable of Initiating Long-Term Hematopoiesis In Vitro", Blood, 1989, Vol./Issue No. 74-5, pp. 1563-1570	<input type="checkbox"/>
		TOKSOZ ET AL., "Support of Human Hematopoiesis in Long-Term Bone Marrow Cultures by Muring Stromal Cells Selectively Expressing the Membrane-Bound and Secreted Forms of the Human Homolog of the Steel Gene Product Stem Cell Factor", Proc. Natl. Acad. Sci. USA 1992, Vol./Issue	<input type="checkbox"/>
		TOLCHER, A.W., "Current Status of Post-chemotherapy Tamoxifen in Early Breast Cancer", Oncology, November 1994, Vol./Issue No. 8/11, pp. 39-43	<input type="checkbox"/>
		TORRE, D. ET AL., "Interaction of human plasma fibronectin with viral proteins of human immunodeficiency virus", Fems. Immunol. Med. Microbiol., 1994, Vol./Issue No. 8-2, pp. 127-131	<input type="checkbox"/>
		TSAL, SCHWICKWANN ET AL., "Differential binding of erythroid and myeloid progenitors to fibroblasts and fibronectin", Blood, 1987, Vol./Issue No. 69-6, pp. 1587-1594	<input type="checkbox"/>
		VALSESIA-WITTMANN, S. ET AL., "Modifications in the Binding Domain of Avian Retrovirus Envelope Protein to Redirect the Host Range of Retroviral Vectors", J. Virol., 1994, Vol./Issue No. 68:7, pp. 4609-4619	<input type="checkbox"/>
		VAN BEUSECHEM, V.W., ET AL., "Long-Term Expression of Human Adenosine Deaminase in Rhesus Monkeys Transplanted with Retrovirus-Infected Bone-Marrow Cells", Proc. Natl. Acad. Sci. USA 1992, Vol./Issue No. 89, pp. 7640-7644	<input type="checkbox"/>
		VAN DER SLUIJS, "Differential Adherence of Murine Hematopoietic Stem Cell Subsets to Fibronectin", Experimental Hematology, 1994, Vol./Issue No. 22, pp. 1236-1243	<input type="checkbox"/>
		VARMUS, HAROLD, "Retroviruses", SCIENCE, June 10, 1988, pp. 1427-1434	<input type="checkbox"/>
		VERFAILLIE, C.M., ET AL., "Differentiation of Primitive Human Multipotent Hematopoietic Progenitors Into Single Lineage Clonogenic Progenitors is Accompanied by Alterations in Their Interaction with Fibronectin", J. Exp. Med., 1991, Vol./Issue No. 174, pp. 693-703	<input type="checkbox"/>
		WAGNER, J.E. ET AL., "Transplantation of Umbilical Cord Blood After Myeloblastic Therapy: Analysis of Engraftment", Blood, 1992, Vol./Issue No. 79:7, pp. 1874-1882	<input type="checkbox"/>
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		Examiner Name	Maria Marvich		
Sheet	9	of	9	Attorney Docket Number	7037-377
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		WAGNER, J.E. ET AL., "Allogenic umbilical cord blood transplantation: Report of results in 26 patients", Blood, 1993, Vol./Issue No. Abstract, pp. 82-86a			<input type="checkbox"/>
		WATT ET AL., "Adhesion Receptors are differentially expressed on Developing Thymocytes and Epithelium in Human Thymus", Experimental Hematology, 1992, Vol./Issue No. 20, pp. 1101-1111			<input type="checkbox"/>
		WIGINTON, DAN A. ET AL., "Complete Sequence and Structure of the Gene for Human Adenosine Deaminase", Biochemistry, 1988, Vol./Issue No. 25, pp. 8234-8244			<input type="checkbox"/>
		WILLIAMS, DAVID A. ET AL., "Fibronectin and VLA-4 in Haematopoietic Stem Cell-Microenvironment Interactions", Nature, 1991, Vol./Issue No. 352, pp. 438-441			<input type="checkbox"/>
		XIAO, M. ET AL., "Extensive proliferative capacity of single isolated CD34 human cord blood cells in suspension culture", Blood Cells, 1994, Vol./Issue No. 20, pp. 455-467			<input type="checkbox"/>
		XU, L.C., ET AL., "Long-term in vivo expression of the human glucocerebrosidase gene in nonhuman primates after CD34+ hematopoietic cell transduction with cell-free retroviral vector preparations", Proc. Natl Acad Sci USA 1995, Vol./Issue No. 92, pp. 4372-4376			<input type="checkbox"/>
		XU, LINCHENG, ET AL., "Correction of the enzyme deficiency in hematopoietic cells of Gaucher patients using a clinically acceptable retroviral supernatant transduction protocol", Experimental Hematology 1994, Vol./Issue No. 22, pp. 223-230			<input type="checkbox"/>
		YAO ET AL., "Primary myoblast-mediated gene transfer: persistent expression of human factor IX in mice", Gene Therapy, 1994, Vol./Issue No. 1:2, pp. 99-107			<input type="checkbox"/>
		ZIEGLER, B.L. ET AL., "Phenotype analysis of umbilical cord (CB) blood CD34 cell subpopulations", Blood, 1992, Vol./Issue No. 80 Supp. 1, pp. 408A			<input type="checkbox"/>

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